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September 26, 1996

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Mr. William F. Caton  
Acting Secretary  
Federal Communications Commission  
1919 M Street, N.W., Room 222  
Washington, D.C. 20054

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF SECRETARY

Re: Rules and Policies for the Local Multipoint Distribution System (LMDS)  
CC Docket No. 92-297

Dear Mr. Caton:

On August 12, 1996 SBC filed comments opposing local exchange carrier (LEC) eligibility restrictions for LMDS licenses. SBC believes that an "open entry" policy is the only way to allocate spectrum resources that is competitively fair.

Certain parties filed pleadings in this proceeding which indicate their concern that LEC participation in the LMDS auctions would be anticompetitive. SBC files this ex parte to provide evidence that local exchange competition is alive and growing. Thus, eligibility restrictions are not necessary. First, in Southwestern Bell Telephone's service area approximately 50 local service providers (LSPs) have requested interconnection negotiations. Southwestern Bell Telephone has finalized interconnection agreements with 10 of those LSPs.

Also, SBC attaches a detailed summary of the status of competition in our biggest state, Texas. This analysis, along with the FCC's own Orders implementing the 1996 Act, provide evidence that local exchange competition is a reality. Thus, the FCC should not impose eligibility restrictions on the LECs for the LMDS auctions.

Sincerely,

Attachment

cc: Chairman Reed Hundt  
Commissioner James Quello  
Commissioner Susan Ness  
Commissioner Rachelle Chong

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Mr. William F. Caton  
September 26, 1996  
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cc: Mr. John Nakahata  
Mr. Rudy Baca  
Mr. David Siddall  
Ms. Suzanne Toller  
Mr. John Berresford  
Mr. Joseph Farrell  
Mr. Thomas Koutsky  
Mr. Joseph Levin  
Mr. Susan Magnotti  
Mr. Walter Strack

# *Scope of Competition in Texas*



June 14, 1996

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# **Scope of Competition in Texas**

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*Submitted to the Public Utility Commission of Texas*

*by*  
***Southwestern Bell Telephone Company***

**June 14, 1996**

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# Executive Summary

## CONCLUSIONS

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The landscape looks different from the last time Southwestern Bell submitted this report on the "Scope of Competition in Texas." The next time we submit this report, the change should prove to be even more dramatic.

With both state and federal enabling legislation, the stage is set for a quick transition into a market governed by customer choice rather than regulation. This is not a failure of regulation, but an evolution. Technology and time have made customer choice a reality. There are at least three paths into every home: telephone, coaxial cable, and wireless. In the near future, we will stop thinking about the path and will compete based on the package. Packages will be offered by alliances of companies that form to entice the customer with choices and an array of services.

Regulation will likely continue as the referee but regulators must be careful not to be drawn into the contest, giving advantage to a particular competitor. With the speed of change we face, unnecessary regulatory constraints can quickly create unintended consequences and inefficient markets. Fairness and equity remain important public policy goals but regulators must use a light hand and force market based solutions whenever possible, remembering that competition is not always orderly or kind. Companies will also fail. New competitors will take their places. In five years, neither the information industry nor information industry regulators will look the same.

The following conclusions are drawn generally from the text and data which follows. They are intended to paint a picture, not advocate particular policy decisions. Some can be traced directly to the charts and maps. Others are extrapolations, educated guesses and opinions.

***Conclusion 1: Telephone competition is moving fast.***

- The attached report on the Scope of Competition" is at best a snapshot.
- Our ability to predict outcomes following from strategic decisions or to target policy directions following from regulatory decisions, is rapidly eroding.
- Precedent based decisions along with forecasting the future from the past are becoming unreliable.
- Not only is the speed of change increasing, but the direction of change is no longer a smooth trend line. We are beginning to see discontinuous change.
- At some point in the near future, customer choice, entrepreneurship, and capitalistic risk taking will replace business as usual, regulatory governance and legislative policy direction as the driving factors of change.

***Conclusion 2: Fairness and equity remain important policy goals in the midst of revolutionary change.***

- Competitive markets do not do all things equally well.
- Fairness and equity constraints must be built into the process and enforced.
- All customers must see a benefit. Groups of customers must not benefit at the expense of other groups of customers.
- One part of the state must not gain economic advantage over another part of the state.

***Conclusion 3: Last year's telecommunications reforms (PURA 95) are doing what was intended. Texas is a leader in telephone competition.***

- Texas has always encouraged competition.
- The large volume of calls that start and end within the state make Texas an ideal battleground for competition.
- Texas has benefited from strong interexchange competitors and was an early home to competitive access providers.
- Texas has more applicants to become local service providers than any state besides California. Since PURA 95 was enacted, the PUC has received 57 applications from companies wishing to become local service providers.



***Conclusion 4: The lines between types of information transporters are blurring rapidly.***

- Everyone is in everyone else's business.
- Companies are setting up "one stop shopping" and will offer local, long distance, Internet, and television programming (cable or satellite) as a package, with only one bill.
- Our current distinctions of local, intraLATA, interLATA, long distance and interexchange will soon be meaningless.
- Some phones already handle both wire based and wireless cellular calls.
- The public is indifferent to mode of information transport.

***Conclusion 5: This is a competition between huge companies.***

- At \$12 billion in revenues, SBC is the sixth largest competitor in the Texas market.
- The five larger competitors include:
  - AT&T at \$79 billion in revenues (\$51 billion after the spin-offs),
  - the Sprint alliance at \$24 billion,
  - GTE at \$20 billion,
  - Time Warner at \$17 billion, and
  - MCI at \$15 billion.
- Several of the other Bell companies have only begun to target the Texas market, and are also larger than SBC.
- Competition will emerge through packages of services offered by groups of companies acting as a consortium.



***Conclusion 6: Regulatory intervention into competitive markets should be reserved only for the most critical fairness, equity or public safety issues.***

- Universal service subsidies should be targeted only to those markets where competition needs a jump-start. The best targeting mechanism is probably the size of the exchange. Formulas should be simple and direct. The fund should be a jump-start, not a permanent crutch.
- Rate rebalancing will take care of itself through competitive pressures and packages of services. Absent regulatory interventions, the market will dictate what services the packages contain and how they are priced.
- The proposed PUC mediation of broad telephone competitive transition issues holds great promise and is a constructive use of regulatory powers.
- Regulation can be used by competitors for both offensive and defensive purposes, to gain access to new markets or to slow the entrance of competitors.
- Southwestern Bell believes a rapid transition is in the best interest of Texas.

***Conclusion 7: Interconnection agreements are very complex.***

- SWBT is the only incumbent company in Texas to complete an interconnection agreement.
- Several other agreements are close to completion. Once a few more are signed, the rest should follow.

## BACKGROUND

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Significant competition already exists in the telecommunications industry in Texas. The transition to a competitive marketplace began well before enactment of Texas' landmark telecommunications reform legislation, the Public Utility Regulatory Act of 1995 (PURA 95), or the passage of the federal Telecommunications Act of 1996.

As early as 1986, competitive access providers began eroding local exchange companies' state-granted franchise to deliver local service. These companies, located in major cities in Texas, provided telecommunications services to business customers in profitable high-density metropolitan markets, bypassing the local exchange company. Cellular companies offered another alternative to local exchange company services beginning in 1984.

The long-distance market has experienced competition for many years. Major long-distance interexchange carriers such as AT&T, MCI and Sprint have competed for interstate and intrastate long-distance dollars since the early 1970s. In addition, interexchange carriers have competed with Southwestern Bell Telephone and GTE in providing long-distance calling within federally defined jurisdictions called "local access transport areas" (LATAs) since the break-up of the Bell system in 1984.

These and other competitive trends had strained the bounds of traditional rate regulation to the breaking point. Price regulation and traditional local exchange franchises for local calling no longer made sense in an environment where competition existed. Texas became a national leader when it reformed its telecommunications laws through enactment of PURA 95. The state act, effective September 1, 1995, fundamentally reshaped the telecommunications industry. The new law:

- opens local exchange markets to competition
- allows companies to move from rate of return regulation to price regulation
- provides for pricing flexibility
- establishes infrastructure goals
- establishes a Telecommunications Infrastructure Fund
- provides competitive safeguards

The federal Telecommunications Act of 1996 complemented and reinforced Texas' PURA 95, mandating on a national scale many of the competitive advances already enacted in Texas. The federal Act also established a basis for more competition in the long-distance markets by allowing SWBT into interLATA calling after certain conditions are met.

The new competitive environment established in PURA 95 and supported through federal legislation has accelerated the growth of competition in Texas. For example, since PURA 95 became effective in September 1995, 57 applications to provide local service in competition with incumbent local exchange companies have been filed with the Texas Public Utility Commission; 32 of these had been approved as of June 1996. Southwestern

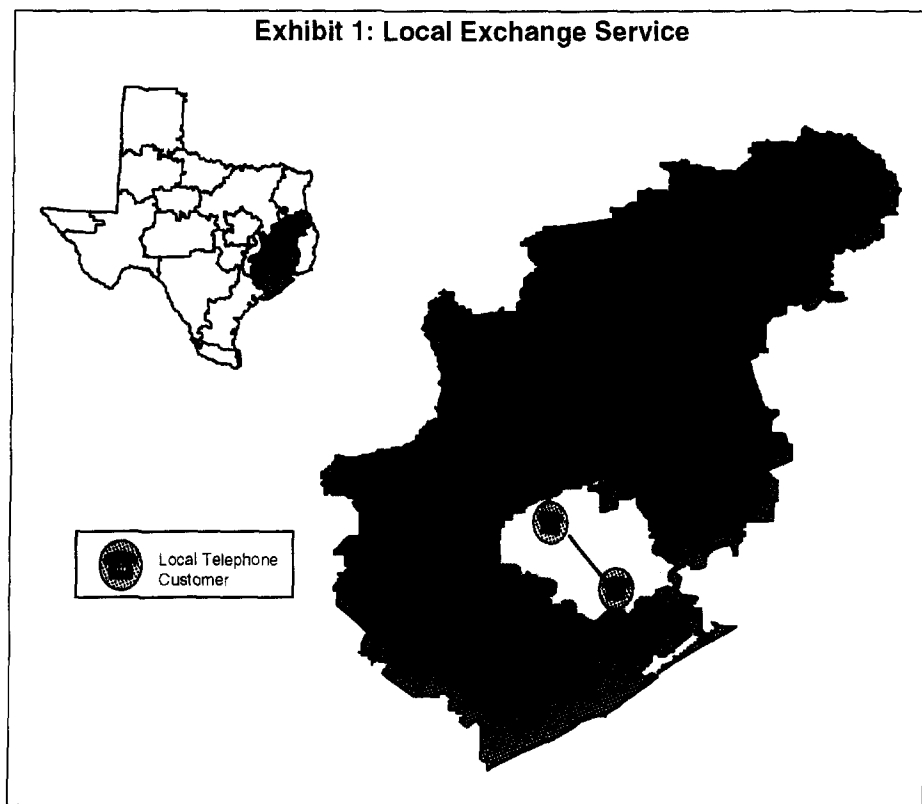
Bell Telephone has also moved ahead to meet PURA 95 requirements for developing advanced telecommunications infrastructure in the state. The Company has upgraded facilities in 14 cities to provide end-to-end digital connectivity, and plans to complete upgrades in another 12 cities by the end of 1996. Current plans call for all of Southwestern Bell Telephone's central offices to be served by digital switches by the end of 1998.

The information in this report sets out many of the advances taking place in telecommunications in Texas. Where possible, the material outlines both known and potential competition in the various telecommunications services, using charts and maps when available.

## TELECOMMUNICATIONS SERVICES

The Public Utility Commission has requested competitive information in three telecommunications service areas: local network services, access services, and long-distance services.

**Local network services** are composed of many things, including: local exchange service, wireless service, and a host of smaller offerings. PURA 95 made significant strides in introducing competition to traditional *local exchange service*, the traditional local calling service that local phone companies offer (Exhibit 1).



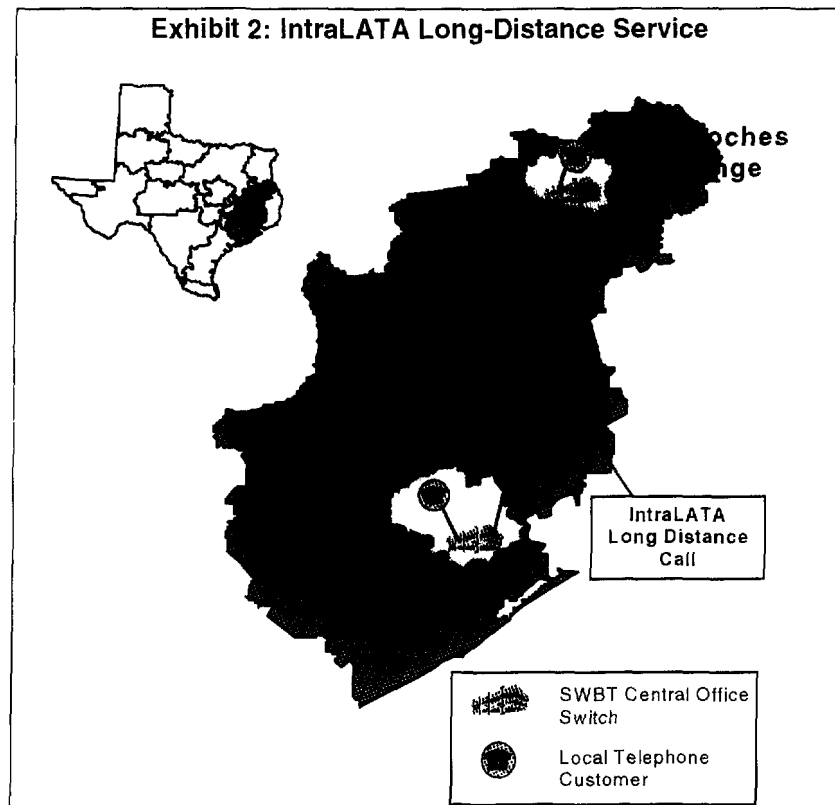
Customers pay a flat rate per month for local calling, regardless of the amount of time spent on the phone. This local calling occurs within an "exchange." An exchange is often the size of a city or community. As long as a call starts and ends within the same exchange, the call is a local call.

Local telephone service has historically been provided by "local exchange companies" like southwestern Bell Telephone. More and more frequently, other types of companies are being approved to offer local service, as will be discussed later in this section.

**Long-distance services** typically refer to a call that originates within a local exchange but ends outside that exchange. Long-distance companies charge a toll for such calling, and that toll is usually based on the distance the call travels and the duration of the call.

One type of long-distance call is an **intraLATA** call (Exhibit 2). A LATA is a "local access transport area." The United States district court defined these regional areas during the breakup of the Bell systems in the 1980s. There are 17 LATAs in Texas.

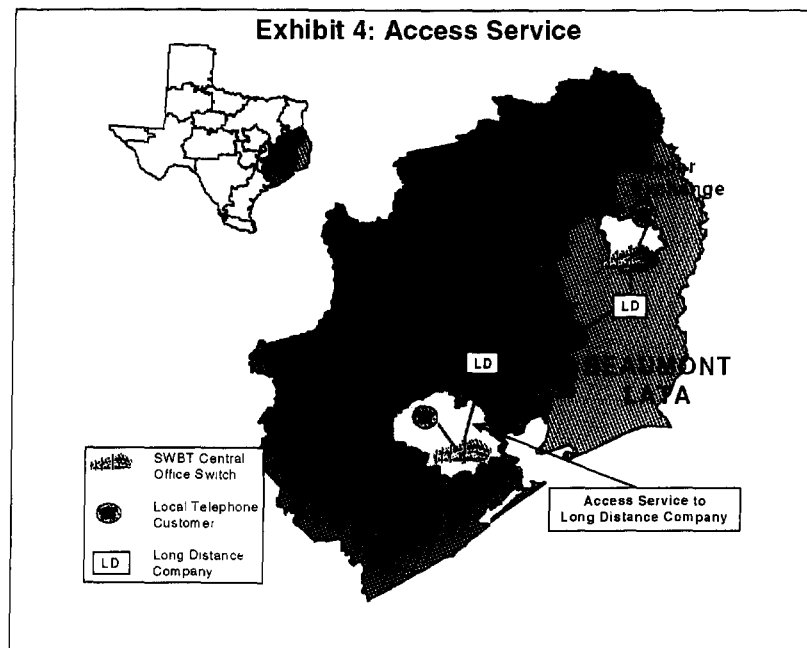
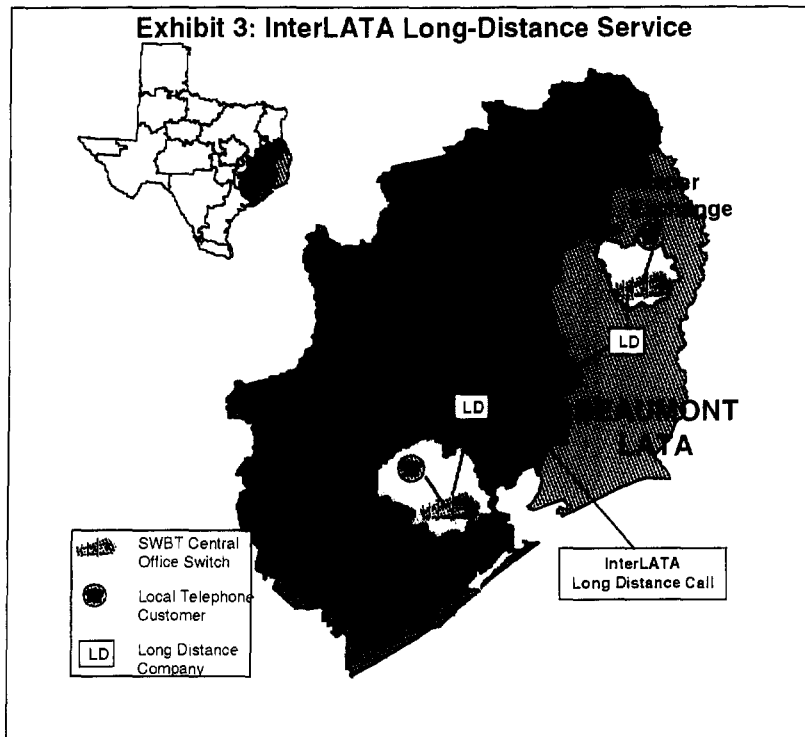
An intraLATA long-distance call travels between local exchanges but within the same LATA. If the intraLATA call is dialed in the normal manner (1 + area code + phone number), then the local exchange company completes the call. However, calling arrangements do exist where long-distance companies can complete these calls when the customer uses different dialing patterns.



Apart from intraLATA calls, a second type of long-distance call is an *interLATA* call (Exhibit 3). This type of call crosses LATA boundaries, traveling from a local exchange in one LATA to a local exchange in a different LATA. The different LATA could be either in the same state or out of state. The call is dialed in the typical manner (1 + area code + phone number).

*Access service* is offered by local exchange companies. The main type of access service is *switched access*. Local exchange companies usually provide switched access service to long-distance companies. Local exchange companies charge long-distance companies for this service (Exhibit 4).

Long-distance companies do not generally have their own local network to complete long-distance calls. The "access" part of switched access refers to the need of a long-distance company to *access* the local network of a local exchange company to complete long-distance calls. The "switched" part of switched access refers to the local exchange company's ability to *switch* long-distance calls to any of its local customers through its central office switches.



## COMPETITION BY SERVICE CATEGORIES

Significant competition exists or is emerging in these service areas in Texas. Exhibit 5 shows the major telecommunications providers in the state and in the nation. These providers are competing, or will likely compete, in the four major telecommunications categories analyzed in this report: local calling, network access, intraLATA long distance and interLATA long distance.

**Exhibit 5: Size and Scope of Major Telecommunications Companies in Texas**

This chart shows the relative size of, and range of services provided by, the largest telecommunications companies in Texas. The height of the bars are proportional to the companies' annual revenues. Sprint and its partners are represented as a group.

	Local Calling	Network Access	IntraLATA Long Distance	InterLATA Long Distance	Annual Revenue (\$ billions)
AT&T					\$51.0
Sprint Alliance (Sprint, Teleport, TCI, Comcast, Cox)					\$24.4
GTE					\$20.0
Time Warner					\$17.7
MCI					\$15.3
SBC					\$12.7
WorldCom/LDDS					\$3.6
LCI*					\$0.7
MFS*					\$0.6
American Telco*					\$ 0.04

Known Competition

Potential Competition

\*Due to small size, the bar height is not proportional to other companies'.

AT&T has announced a planned spin-off of two of its divisions as new companies. They will be named Lucent Technologies and NCR. Revenues attributable to these two operations, \$21 billion and \$8 billion, respectively, have been excluded from AT&T revenues shown above.

Source: SWBT Internal Records and Individual Company 1995 Annual Reports



Exhibit 5 also demonstrates a significant trend in telecommunications. The major competitors listed represent different "core" businesses. Some, like AT&T, are known as long-distance carriers, others as local exchange companies, and still others as competitive access providers. However, these companies are losing their identity as providers of a single service like long-distance or local exchange service. It is increasingly less rational to talk about AT&T or Sprint as "long-distance companies," for example, when these companies are beginning to offer a comprehensive range of services that includes local exchange calling. *This trend means that everyone is getting into everyone else's business; competition is a reality.*

The major companies bring a tremendous concentration of financial resources to the task. AT&T tops the list with total company annual revenues of \$79.6 billion (\$51 billion after its announced spin-offs), more than double the annual revenues of the Sprint alliance, the next major competitor.

## **Competition in local network services**

Local calling is the most basic and widespread service among a local exchange company's array of local network services. This service has experienced the most striking competitive developments in the last several years and especially since the enactment of PURA 95. Once the almost exclusive domain of local exchange companies like SWBT, local calling is now experiencing competition from newwireline providers and growing wireless services.

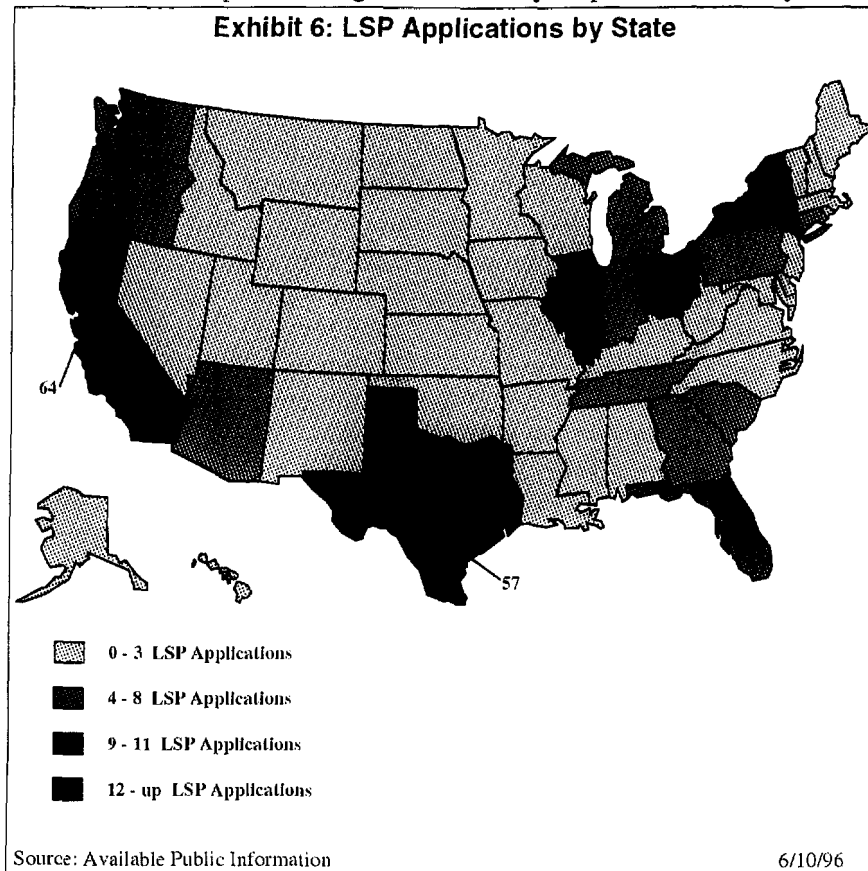
### ***Local service providers***

PURA 95 led the way in opening up local competition to new companies. This legislation set up two new routes for companies to compete with local exchange companies. The law gave the Texas Public Utility Commission the authority to grant companies "certificates of operating authority" (COAs) and "service provider certificates of operating authority" (SPCOAs). Both of these new certificates allow the provision of local service in competition with local exchange companies. Holders of these certificates are called "local service providers (LSPs)."

Service provided by a company holding a COA is "facilities based." This means that the company must primarily rely on its own lines and equipment to serve the area; only 40 percent of the company's customers can be reached using another company's equipment. SWBT believes PURA 95 intended for COAs to invest in Texas and promote the development of advanced infrastructure in the state. SWBT also believes PURA 95 intended for SPCOAs to resell other companies' lines or local exchange service. The PUC, however, has interpreted the law to permit large and heavily capitalized facility-based

providers to operate as SPCOAs as well. The SPCOA certificate was intended to allow companies to enter the capital intensive telecommunications business with less investment, thus promoting additional competition in the state.

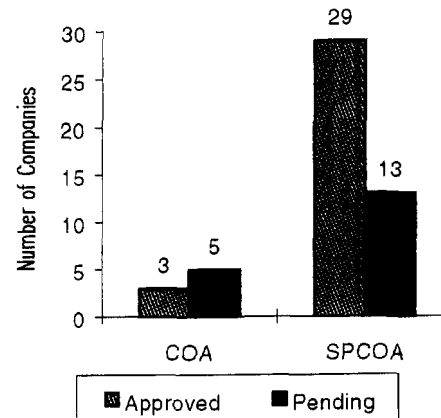
PURA 95 catapulted Texas ahead of most states in promoting telecommunications competition. Texas is second only to California in numbers of



applicants for these kinds of certificates (Exhibit 6). Texas has had a total of 57 companies apply for certification; California has 64. Most of Texas' applications have been for SPCOA certification (Exhibit 7 on the following page).

These local service providers have strong competitive potential. Many of their applications indicate interest in providing local service through the state. Some of the larger local service provider applicants that have received Texas certification also have local calling operations approved or pending in other states, indicating commitment to this type of service (Exhibit 8). In addition, the local service providers often have subsidiaries or affiliates that offer telecommunications services of various types. These include long distance, competitive access, cellular, cable, and even electric services, whose communications

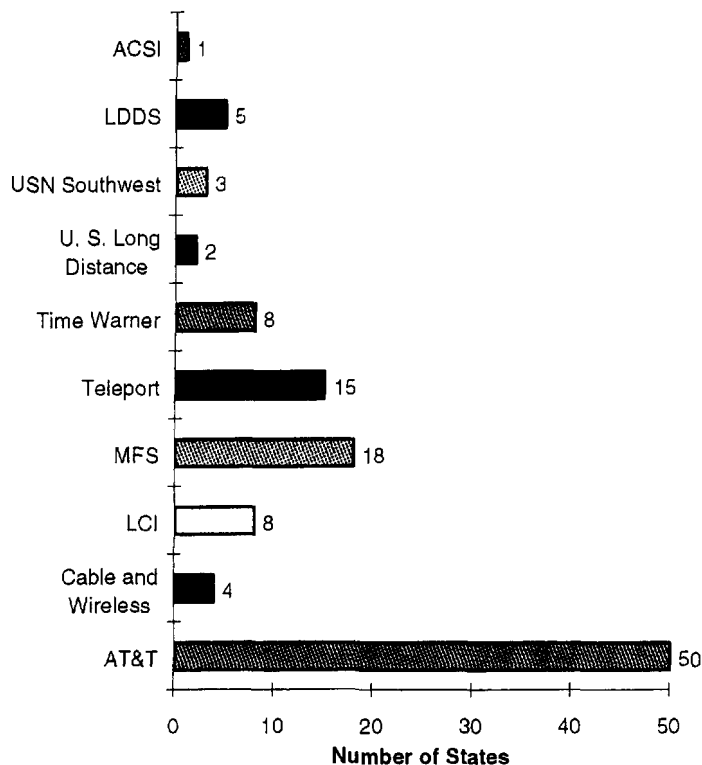
**Exhibit 7: Approved and Pending COA and SPCOA Applications**



Source: Available Public Information

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**Exhibit 8: Certified Texas LSPs with Local Calling Certification Pending or Approved in Other States**



Source: SWBT Internal Records

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networks pass many homes. Of these services, long distance and competitive access services are most frequently offered by Texas LSPs. Twenty-five companies have long-distance affiliations, while 15 have CAP relationships.

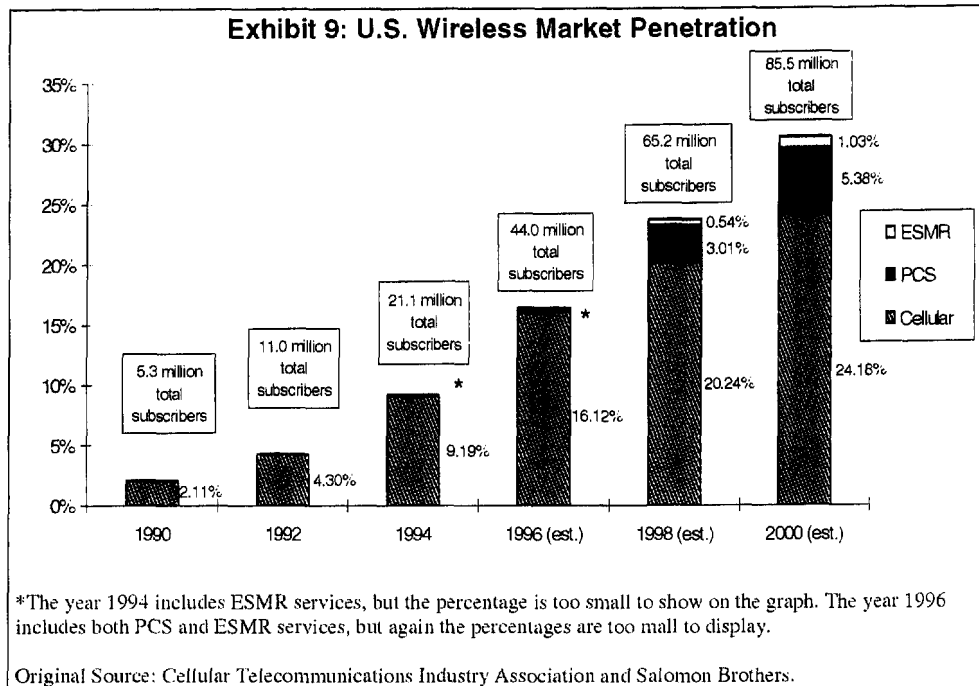
These relationships offer competitive opportunities for the local providers. They can combine local exchange calling with other telecommunications services to offer a range of services.

The telecommunications relationships of the local service providers also present the advantage of ready-made infrastructure for local exchange calling. Some of the local service providers with sizable infrastructure in the state include AT&T with its long distance and other

operations, Time Warner and Teleport with huge fiber investments supporting cable television and competitive access, and GTE with its local exchange resources. These companies, and many others that have applied for local service provider status, have the money, name recognition and infrastructure to make local calling work.

## Wireless services

Wireless services provide an alternative to landline local telephone service. Wireless is already an important competitor in local calling, serving an estimated 16 percent of the U.S. population in 1996. The three primary wireless services are cellular, Personal Communications Services (PCS) and Enhanced Specialized Mobile Radio (ESMR). Each



of these services is expected to grow, with the total wireless market reaching an estimated 24 percent of the U.S. population by the year 2000 (Exhibit 9). This growth stems from declining cost and the advantage of mobility.

Cellular is by far the largest of the wireless services. Some analysts, however, expect PCS to grow in importance in the first quarter of the next century. PCS offers "cellular-like" services, but operates on lower power than cellular, reducing the weight and cost of hand units in comparison to cellular. The Personal Communications Industry Association projects that there will be 167 million PCS and cellular customers in the country by 2023. Enhanced Specialized Mobile Radio is another wireless service that uses radio technology to transmit two-way dispatch, data broadcast and mobile telephone service. The number of SMR customers reached about 1.8 million in 1995 and is expected to continue its growth throughout the 1990s.

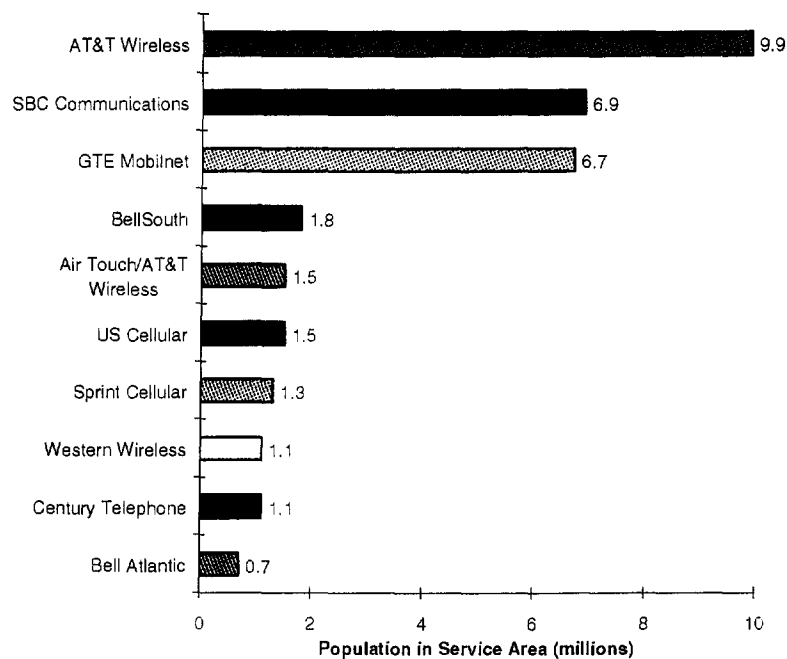
In Texas, wireless services have made substantial inroads as a local calling competitor. The largest cellular provider is AT&T, reaching a population of 9.9 million. SBC Communications comes next with a service area of 6.9 million, followed by GTE Mobilnet with a service area of 6.7 million (Exhibit 10).

PCS, while in its infancy, shows promise for Texas. The Federal Communications Commission has licensed companies to provide PCS in the four Texas trading areas of Dallas-Fort Worth, Houston, San Antonio and El Paso (Exhibit 11).

These companies holding Texas PCS licenses are large and have the capability of combining separate telecommunications technologies to build huge networks. Sprint Spectrum, serving in Dallas-Fort Worth and San Antonio trading areas, is a good example.

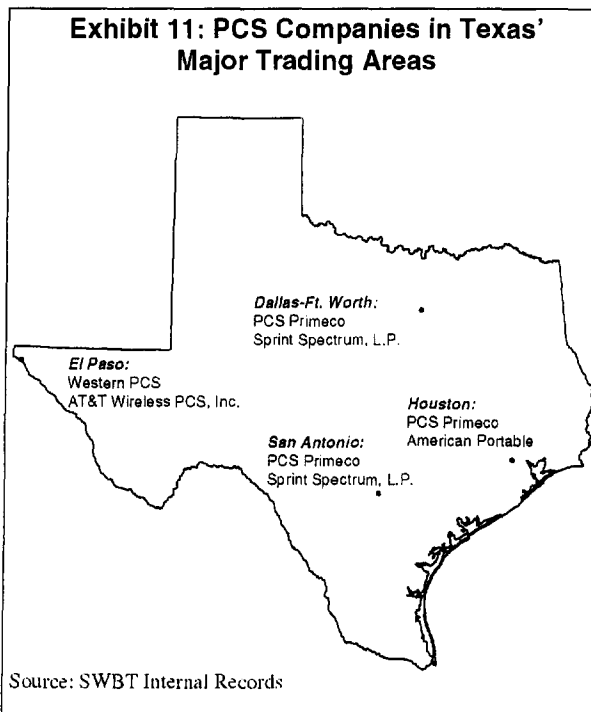
Sprint Spectrum is co-owned by Sprint and three cable companies, Comcast Corporation, Cox Enterprises and Tele-Communications Inc. Sprint Spectrum can bypass local exchange companies to potentially offer seamless nationwide service through its existing cellular properties, its new PCS operations, its cable-based services of the future and its long-distance backbone. AT&T Wireless is another example of immense market power. AT&T Wireless holds a PCS license to serve the El Paso trading area. The company brings to the task its status as the largest cellular provider in Texas and the nation as well as the largest and best known long-distance provider in the nation.

**Exhibit 10: Population Reached by Major Cellular Companies in Texas**



Source: Kagan's Cellular Telephone Atlas 1995

**Exhibit 11: PCS Companies in Texas' Major Trading Areas**



Source: SWBT Internal Records

The new local service providers in Texas, combined with a rapidly growing wireless presence, can only guarantee intense local calling competition for Texas. PURA 95 is working. Local service providers are taking advantage of the new law to offer local calling, often in concert with other telecommunications services like wireless and long distance.

## Competition in long-distance services

The long-distance industry, which has been competitive since before AT&T's divestiture, continues to become more competitive each year. Motivating this trend is change: change in the roster of service providers, change in the marketing strategies and vehicles that are used, and change in the technologies that are deployed to provide the services.

The list of companies in the long-distance market changes continually. Five of the largest providers nationally all have a presence in Texas. In order, from largest to smallest, they are AT&T, MCI, Sprint, LDDS WorldCom, and LCI. In Texas, the total number of long-distance companies registered with the PUC tops 700, with over 100 of these registered since September 1, 1995. Also significant is the arrival of two large local telephone companies, GTE and Bell Atlantic, to the Texas long-distance market.

Prepaid calling cards are a recent example of a new marketing tool that has increased competition in the market. These cards enable a person to pay in advance for a set amount of long-distance use. A card purchaser dials a special access number, then follows the instructions of the card issuer to complete his call. Both the issuing company and the customer gain protection from toll fraud with the pre-pay arrangement.

Another category of marketing strategy innovation is the flat-rated calling plan. Many long-distance companies, for example, offer a flat rate per minute for long-distance calls, regardless of time or day, with no subscription fee and no penalties.

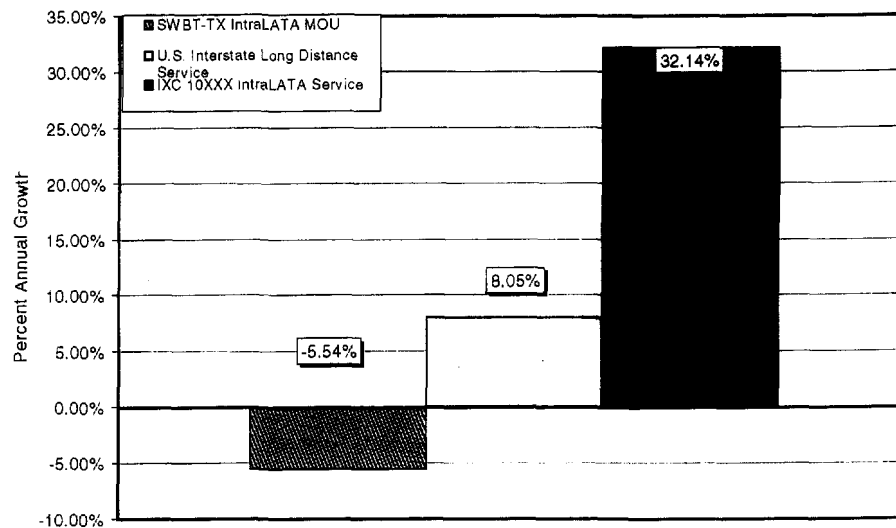
Many companies are combining long distance with other services and marketing a "package" of telecommunications services. MCI has rolled out a product they call "MCI One" that combines long distance, paging, and Internet access. The service is tied to an 800 number that can "find" the customer at home, at the office, etc. The customer gets one bill for the package of services, and MCI includes free voice mail, call waiting, and five hours of free Internet access per month. The logical extension of this trend is the creation of "one-stop shopping," where one company supplies all of a customer's telecommunications needs.

One area of the Texas long-distance market that has seen a marked increase in marketing-driven competition is intraLATA toll calls. At this time, the local exchange companies in Texas, including Southwestern Bell, are the default carrier of 1+ intraLATA toll calls. By advocating the use of various so-called dial-around schemes, however, long-distance providers have increased the level of competition for intraLATA toll service. Several long-distance companies have conducted aggressive advertising campaigns to advocate these dialing plans since 1994, and their success can be seen in Exhibit 12 on the following page which illustrates this result: from the end of 1993 to the end of 1995, SWBT lost an



average of 5.5 percent per year, while the other carriers, combined, enjoyed an increase of 32.1 percent.

**Exhibit 12: Long-Distance Minutes of Use Annual Growth from 1994 through 1995**



Source: FCC Trends in Telecommunications Reports 1995 and SWBT Internal Records

A potential area of competition for all long-distance providers involves the Internet. The Internet can be used today, with appropriate software running on a personal computer, to transmit and receive voice messages. There are around 30 million Internet users today, with numbers increasing daily. With the prospect of making unmetered long-distance calls world-wide, the potential demand is enormous. The long-distance market has already been impacted by competition from this source.

## Competition in network access services

Access service is a basic network service offered primarily to long-distance companies and business customers. This area has seen competition build since the mid-1980s, and this trend has accelerated since PURA 95 went into effect. Traditionally it was local exchange telephone companies who provided network access service to large business customers and long-distance companies. However, today many alternative suppliers of access exist such as competitive access providers (CAPs).

There are two forms of access services, switched and special. Local exchange telephone companies are providing switched access service primarily to long-distance companies in order to originate and terminate long-distance calls. Special access service was designed to connect two specific points and does not require the use of a central office switch. Competition in network access services began in special access in the mid-1980s when CAPs began connecting business customers directly to long-distance company switches.

These connections bypassed the local telephone company's switch, allowing the business and the long-distance provider to avoid charges related to switching long-distance calls.

PURA 95, which led the way in opening up local competition to new providers, provides an opportunity for these CAPs to move beyond special access and begin to offer local exchange service and switched access services in direct competition with local companies. Nationally, CAPs have started upgrading their networks by increasing fiber route miles, deploying telephone central office switches and obtaining certification from state regulators to provide local telephone service. Deployment of central office switches enables a CAP to provide two other services. One is local telephone service. The other is switched access service to long-distance companies and business customers. These additional capabilities make a CAP a stronger competitor to local exchange companies.

In Texas, nine different CAPs have entered SWBT's service area with 18 separate fiber optic cable networks that are providing access services: MFS, TCG, Time Warner Communications (TWC) and its subsidiary Fibrcom, Phonoscope, American Communications Services, Inc. (ACSI), MCI Metro, CSW Communications and Metro Access. These CAP fiber networks have been strategically placed in metropolitan areas: Austin, Dallas, Fort Worth, San Antonio, Corpus Christi, Houston, Harlingen, McAllen and El Paso. Three of the larger CAPs providing access service in Texas have been approved to provide local telephone service here in Texas: MFS, Teleport and Time Warner. There is also one CAP, ACSI, that has an SPCOA application pending before the PUC (Exhibit 13 on the following page). An additional 14 CAP fiber networks are being planned or are already under construction across Texas.

**Exhibit 13: Local Service Provider Certification Status for  
Competitive Access Providers in Texas**

<b>Competitive Access Provider in Texas</b>	<b>Certified as LSP in Texas</b>	<b>Pending LSP Certification in Texas</b>	<b>Certified as LSP in Other States</b>	<b>Pending LSP Certification in Other States</b>
ACSI	✓		✓	
Brooks Fiber			✓	✓
CSW				
IntelCom Group (ICG)			✓	✓
GST Telecomm.				✓
MCImetro			✓	✓
MCImetro Access		✓		
Phonoscope				
MFS	✓		✓	✓
Teleport	✓		✓	✓
Time Warner	✓		✓	✓

Source: SWBT Internal Records  
6/10/96

- The companies listed in the left hand column of this chart are competitive access providers in Texas. They have extensive fiber networks in place to bypass local exchange companies like Southwestern Bell Telephone and connect big business customers directly to long-distance networks.
- These competitive access providers are well positioned to provide local telephone service in Texas because of their existing infrastructure. As the chart indicates, four of these 11 companies have either received Texas certification as a local service provider or have applied for this Texas certification.
- The chart also shows that eight of these same 11 competitive access providers already are, or will be, operating as local service providers in other states. If they are not yet seeking this status in Texas, their presence in other states suggests that extending their local service to Texas could be just around the corner.

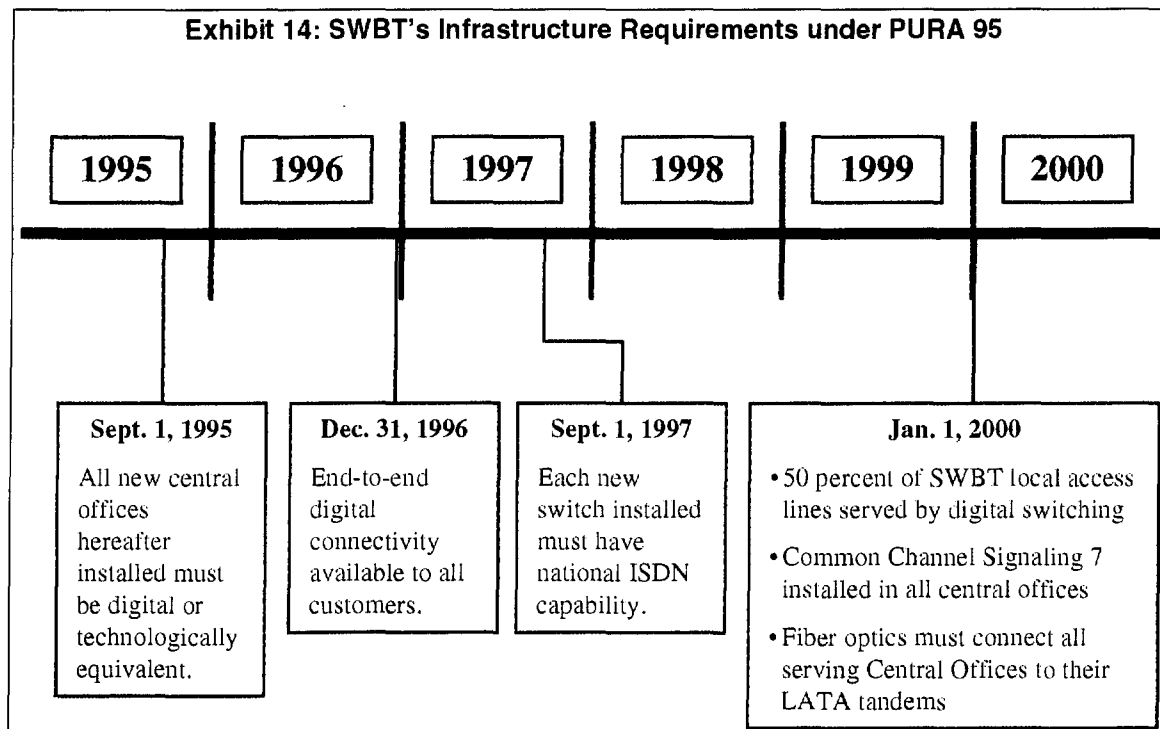
## NETWORK INFRASTRUCTURE DEVELOPMENT

PURA 95 sets out infrastructure goals for local exchange telephone companies that elect to conduct their business under the law's incentive regulation plan. The purpose of these goals is to facilitate and promote the deployment of an advanced telecommunications infrastructure in order to spur economic development throughout Texas. SWBT and GTE Southwest, Inc., have elected incentive regulation under PURA 95, subtitle H.

There are two infrastructure goals under subtitle H. The first is to make certain network infrastructure upgrades and enhancements. The second is to provide broadband services to certain entities.

### Network infrastructure upgrades

The intent of the infrastructure goal is to promote private investment in the state's telecommunications infrastructure. SWBT is doing this by making certain network upgrades by specific target dates identified in the law. Exhibit 14 shows the goals for network upgrades for SWBT and target dates for upgrade completion.



SWBT is rapidly making the upgrades to its network listed above. SWBT has completed the upgrade of 14 central offices across the state to provide for end-to-end digital connectivity and ISDN overlay. Twelve additional central offices are scheduled for network upgrades in 1996.

In the area of digital switching, plans call for all SWBT central offices to be served by digital switches by the end of 1998. A total of 43 central offices are scheduled to install digital switches in 1996. The remaining 30 central offices will be upgraded in following years. In addition, SWBT has identified 40 central offices that will connect to their LATA tandem central offices with fiber optics in 1996.

## Broadband services to certain public entities

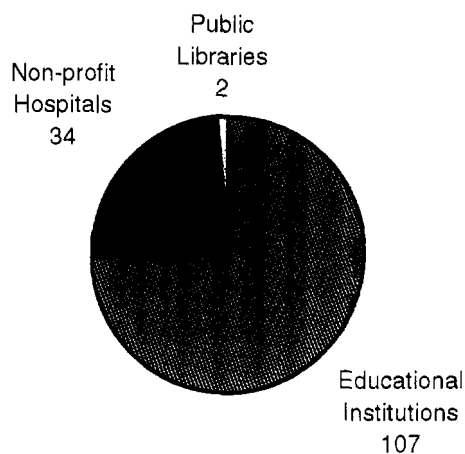
The intent of this second goal is to establish a telecommunications infrastructure that will provide new entities enhanced telecommunications services at an affordable cost. To promote this, SWBT is providing, upon request, broadband services at discounted rates and toll-free access to an Internet service provider. Entities eligible for broadband services at discounted rates include educational institutions, public libraries, public or non-profit hospitals and nonprofit telemedicine and academic health care centers. Entities eligible for access to an Internet provider are public libraries and public schools which currently cannot reach an Internet provider with a local telephone call.

Broadband digital services offered by SWBT at discounted rates include high-speed transmission lines enabling access to a variety of data bases, high-speed data networks, the interconnection of local- and wide-area networks, interactive video and other private network services. These services are offered at a discounted rate of SWBT's cost plus 5 percent. In addition, these entities do not pay special construction or installation charges for these services.

Exhibit 15 shows the number of broadband services sold at discounted rates to eligible entities across the state as of March 31, 1996. Available data reveals that 107 educational institutions, 34 non-profit hospitals and two public library systems have taken advantage

of the discounted rates on broadband services. The educational institutions category includes school districts, community colleges, colleges, universities, state supported educational agencies, and university system offices. The non-profit hospitals category includes academic health centers and non-profit hospitals. The public library category includes city library systems.

**Exhibit 15: Services Sold at Discounted Rates to Schools, Libraries and Hospitals**



Source: SWBT Internal Records

6/10/96